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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,979	11/20/2001	Urs Peter Bernhard	3-8-14	4727

7590

10/07/2005

Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER

NGUYEN, TOAN D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,979

Applicant(s)

BERNHARD ET AL

Examiner

Toan D Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/20/01</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 4 is objected to because of the following informalities:

In claim 4 line 5, it is suggested to change "a user equipment" to --- the user equipment ---.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being unpatentable over Mitts et al. (US 5,896,373) in view of Guo et al. (US 6,389,034).

For claim 1, Mitts et al. disclose method for executing handover in a radio extension of an ATM network, comprising the step of:

coupling (figure 2a, reference 5) a first scheduling mechanism of a first cell (figure 2a, reference AP1) with a second scheduling mechanism of a second cell (figure 2a, reference AP2) (col. 5 lines 22-26). However, Mitts et al. do not expressly disclose adjusting a data transmission rate for a user equipment in dependence on a data flow rate ensured during a preceding time thereby providing a definable minimum value for the data transmission rate, a medium value for the data transmission rate or a maximum value for the data transmission rate. In an analogous art, Guo et al. disclose adjusting a data transmission rate for a user equipment in dependence on a data flow rate ensured during a preceding time thereby providing a definable minimum value for the data transmission rate, a medium value for the data transmission rate or a maximum value for the data transmission rate (col. 5 lines 28-31).

One skilled in the art would have recognized adjusting a data transmission rate for a user equipment in dependence on a data flow rate, and would have applied Guo et al.'s adjust the transmission rate in Mitts et al.'s radio extension of an ATM system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Guo et al.'s system for providing stream based and packet based service in Mitts et al.'s method for executing handover in a radio extension of an ATM network with the motivation being to adjust the transmission rate if it receives a flow control message from the base station (col. 5 lines 33-35).

For claim 2, Mitts et al. disclose wherein the step of coupling comprises the step of transferring data having a status information concerning a data flow to be handed over from the first scheduling mechanism of the first cell towards the second scheduling mechanism of the second cell (col. 5 lines 34-59).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitts et al. (US 5,896,373) in view of Guo et al. (US 6,389,034) further in view of Stanwood et al. (US 6,683,866).

For claim 3, Mitts et al. disclose wherein at least one of the first and second scheduling mechanism (figure 2a, references AP1 and AP2) (col. 5 lines 22-26).

However, Mitts et al. in view of Guo et al. do not disclose scheduling mechanism is ensured by linking at least two schedulers each operating on a different protocol layer, wherein each protocol data unit of an incoming data flow to be transmitted is scheduled by a scheduler on an upper layer regarding pre-definable associated quality of service requirements into a priority list to be served by a scheduler of a lower layer. In an analogous art, Stanwood et al. disclose scheduling mechanism (figure 1, reference 106) is ensured by linking at least two schedulers each operating on a different protocol layer (col. 2 lines 41-44), wherein each protocol data unit of an incoming data flow to be transmitted is scheduled by a scheduler (figure 1, reference 106) on an upper layer regarding pre-definable associated quality of service requirements into a priority list to be served by a scheduler of a lower layer (col. 2 lines 35-44 and col. 5 lines 54-67).

One skilled in the art would have recognized data transportation and synchronization in a broadband wireless communication system, and would have

applied Stanwood et al.'s data transportation and synchronization in a broadband wireless communication system in Mitts's scheduling mechanism. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Stanwood et al.'s method and apparatus for data transportation and synchronization between MAC and physical layers in a wireless communication system in Mitts et al.'s method for executing handover in a radio extension of an ATM network with the motivation being to provide a method and apparatus for efficiently transporting and synchronizing data between the Media Access Control (MAC) and physical communication protocol layers in a wireless communication system (Abstract lines 1-4).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitts et al. (US 5,896,373) in view of Guo et al. (US 6,389,034) further in view of Mitts et al. (US 5,940,371).

For claim 4, Mitts et al. disclose:

sending a measurement report comprising an information of the current quality of radio link concerning a first cell (figure 2a, reference AP2), depending on the necessity to handover a user equipment (figure 2, reference MT1) from the first cell (figure 2a, reference AP2) to a second cell (figure 2b, reference AP3) based on a report measurement (col. 5 lines 34-56);

transmitting a handover command message to involved entities (figure 2c, col. 5 lines 60-65);

terminating the scheduling procedure of the first cell (figure 2a, reference AP2) for the data flow of the use equipment (figure 2a, reference MT1) (col. 6 lines 6-9).

However, Mitts et al. in view of Guo et al. do not disclose:

transmitting a status information for the data flows of the user equipment to the second cell; and

starting a scheduling procedure of the second cell for the data flows of the user equipment.

In an analogous art, Mitts et al. (US 5,940,371) disclose:

transmitting a status information for the data flows of the user equipment (figure 8, reference 41) to the second cell (figure 8, reference 50) (col. 10 lines 23-27 and col. 10 lines 32-35); and

starting a scheduling procedure of the second cell (figure 8, reference 50) for the data flows of the user equipment (figure 8, reference 41) (col. 10 lines 35-37).

One skilled in the art would have recognized transmitting a status information for the data flows, and would have applied Mitts et al. (US 5,940,371) of handover in the downlink data transmission in Mitts et al.'s handover procedure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Mitts et al. (US 5,940,371) of maintaining the composition of transferred data during handover in Mitts et al.'s method for executing handover in a radio extension of an ATM network with the motivation being to continues the data transmission from the corresponding point for the new base station (col. 10 lines 57-62).

***Allowable Subject Matter***

7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 7 is allowed.

9. The following is an examiner's statement of reasons for allowance:

Regarding claim 7, the prior art fails to teach a combination of the steps of:  
timestamp shifting during a handover, the timestamp shifting including the step of defining a minimum timestamp value of PDUs of currently scheduled data flows associated with the first cell, or defining a maximum timestamp value of all PDUs of currently scheduled data flows associated with the first cell, or defining a timestamp offset value adapted to be used for an inter-cell compensation, in the specific combination as recited in the claim.

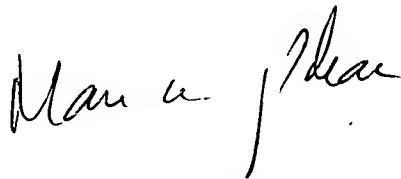
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Man U. Phan". The signature is written in a cursive, flowing style.

**MAN U. PHAN  
PRIMARY EXAMINER**